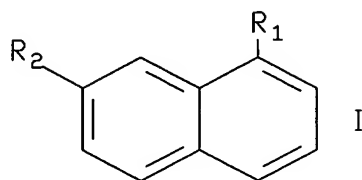


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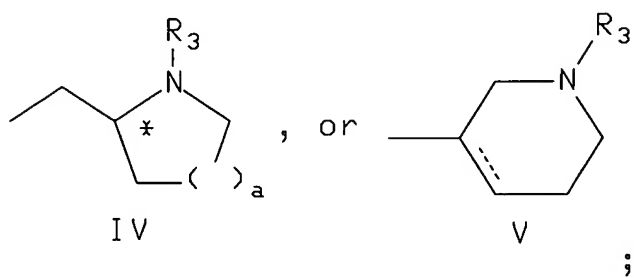
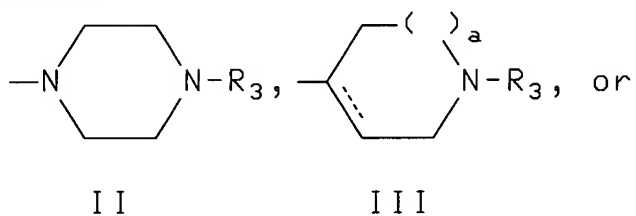
CLAIMS

1. A compound of the formula

10



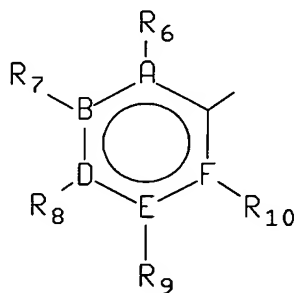
where  $R_1$  is of the formulae



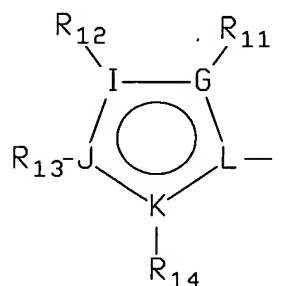
- 5  $R_2$  is  $-R_4$ ,  $-O-R_4$ ,  $-O-S(O)_2-R_4$ ,  $-NR_4R_5$ ,  $R_4-(CH_2)_b-NH(C=X)-(CH_2)_c-$ ,  $R_4-(CH_2)_b-O(C=O)NH-(CH_2)_c-(C=O)NH-$ ,  $R_4-(C=O)NH-(C=O)NH-$ ,  $-(CH_2)_b-NH(C=X)-(CH_2)_c-R_4$ ,  $R_4-(CH_2)_b-O(C=O)-(CH_2)_c-$ ,  $-(CH_2)_b-O(C=O)-(CH_2)_c-R_4$ ,  $-NH(C=X)NH-R_4$ ,  $R_4-O(C=O)O-$ ,  $-O(C=O)NH-R_4$ ,  $R_4-O(C=O)NH-$ ,  $-(CH_2)_b-(C=O)-(CH_2)_c-R_4$ ,  $-NH-S(O)_2-R_4$ ,  $-C(OH)R_4R_5$ ,  $-CH(OH)-R_4$ ,  $-(C=O)-NR_4R_5$ ,  $-CN$ ,  
 10  $-NO_2$ , substituted  $C_1$  to  $C_6$  alkyl, substituted or unsubstituted  $C_1$  to  $C_6$  alkenyl, or substituted or unsubstituted  $C_1$  to  $C_6$  alkynyl, said substituted moieties substituted with a moiety of the formulae  $-R_4$ ,  $-R_4R_5$ ,  $-O-R_4$ , or  $-S(O)_d-R_4$ ;

$R_3$  is hydrogen,  $CH_3OCH_2CH_2$ ,  $C_1$  to  $C_6$  alkyl,  $C_1$  to  $C_6$  alkylaryl, or aryl;

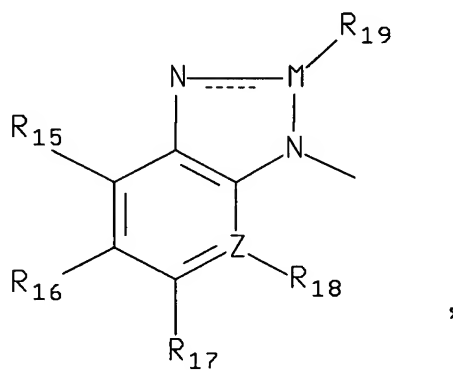
$R_4$  and  $R_5$  are each independently



XV



XVI



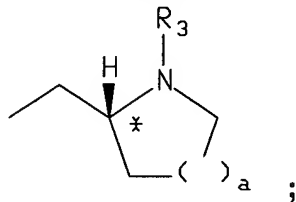
XVII

- 15 hydrogen,  $-CF_3$ ,  $C_1$  to  $C_6$  alkyl,  $C_1$  to  $C_6$  alkylaryl, with the proviso that when  $R_2$  is  $-R_4$  or  $-OR_4$ ,  $R_4$  is not hydrogen or  $C_1$  to  $C_6$  alkyl;

$R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ ,  $R_{11}$ ,  $R_{12}$ ,  $R_{13}$ ,  $R_{14}$ ,  $R_{15}$ ,  $R_{16}$ ,  $R_{17}$ , and  $R_{18}$  are each independently H, halogen,  $-CF_3$ ,  $-(C=O)R_{20}$ ,  $-CN$ ,  $-OR_{20}$ ,  $-NR_{20}R_{21}$ ,  $-NR_{20}SO_2R_{22}$ ,  $-N=C-N(CH_3)_2$ ,  $-N_{20}CO_2R_{22}$ ,  $-S(O)_6R_{20}$ ,  $-SO_2NR_{20}R_{21}$ ,  $-NO_2$ , aryl,  $C_1$  to  $C_6$  alkylaryl,

- 5  $-(C=O)OR_{20}$ ,  $-(C=O)NR_{20}R_{21}$ ,  $C_1$  to  $C_6$  alkyl,  $C_1$  to  $C_6$  alkenyl, and  $C_1$  to  $C_6$  alkynyl;  
 $R_6$  and  $R_7$ ,  $R_7$  and  $R_8$ ,  $R_8$  and  $R_9$ ,  $R_9$  and  $R_{10}$ ,  $R_{11}$  and  $R_{12}$ ,  $R_{12}$  and  $R_{13}$ ,  $R_{13}$  and  $R_{14}$ ,  $R_{15}$  and  $R_{16}$ ,  $R_{16}$  and  $R_{17}$ , and  $R_{17}$  and  $R_{18}$  may be taken together to form a five-to-seven-membered alkyl ring, a six-membered aryl ring, a five to seven membered heteroalkyl ring having one heteroatom of N, O, or S, or a five-to six-membered heteroaryl ring have 1 or 2 heteroatoms of N, O, or S;  
10  $R_{19}$  is hydrogen or  $C_1$  to  $C_3$  alkyl;  
 $R_{20}$  and  $R_{21}$  are each independently hydrogen,  $C_1$  to  $C_6$  alkyl, aryl, or  $C_1$  to  $C_6$  alkylaryl, or may be taken together to form a  $C_4$  to  $C_7$  alkyl ring;  
 $R_{22}$  is  $C_1$  to  $C_6$  alkyl, aryl, or  $C_1$  to  $C_6$  alkylaryl;  
15 A, B, D, E, and F are each independently C or N;  
G, I, J, and K are each independently C, N, O, S, or (C=O), with the proviso that there is at most one of O, (C=O), or S per ring;  
L and Z are each independently C or N;  
M is C, N, or (C-24O);  
20 X is O or S;  
a is 0, 1 or 2;  
e is 0, 1 or 2;  
d is 0, 1, or 2;  
b and c are each independently 0, 1, 2, 3, 4, 5, or 6, with b+c being at most 6;  
25 a broken line indicates the presence optionally of a double bond and the above aryl groups and the aryl moieties of the above alkylaryl groups are independently selected from phenyl and substituted phenyl, wherein said substituted phenyl may be substituted with one to three groups selected from  $C_1$  to  $C_4$  alkyl, halogen, hydroxy, cyano, carboxamido, nitro, and  $C_1$  to  $C_4$  alkoxy, and pharmaceutically acceptable salts thereof.  
30  
2. The compound of claim 1, wherein  $R_1$  is formula II;  $R_2$  is  $-R_4$ ,  $-OR_4$ ,  $R_4-(CH_2)_b-NH(C=X)-(CH_2)_c-$ , or  $-(CH_2)_b-NH(C=O)-(CH_2)_c-R_4$ ;  $R_3$  is hydrogen or  $C_1$  to  $C_6$  alkyl;  $R_4$  is formula XV or formula XVII; A, B, D, E, and F are each independently C or N;  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ ,  $R_{15}$ ,  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ , and  $R_{19}$  are each independently hydrogen, halogen, -CN, or  $-OR_{20}$ ; and  $R_{20}$  is  $C_1$  to  $C_6$  alkyl.  
35  
3. The compound of claim 1, wherein  $R_1$  is formula III;  $R_2$  is  $-R_4$ ,  $-OR_4$ ,  $R_4-(CH_2)_b-NH(C=X)-(CH_2)_c-$ , or  $-(CH_2)_b-NH(C=O)-(CH_2)_c-R_4$ ;  $R_4$  is formula XV or formula XVII;  $R_3$  is hydrogen or  $C_1$  to  $C_6$  alkyl; A, B, D, E, and F are each independently C or N;  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ ,  $R_{15}$ ,  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ , and  $R_{19}$  are each independently hydrogen, halogen, -CN, or  $-OR_{20}$ ; and  $R_{20}$  is  $C_1$  to  $C_6$  alkyl.  
40

5                    4.        The compound of claim 1, wherein R<sub>1</sub> is



10

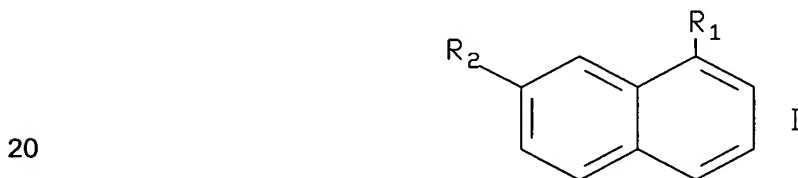
R<sub>2</sub> is -R<sub>4</sub>, -OR<sub>4</sub>, R<sub>4</sub>-(CH<sub>2</sub>)<sub>b</sub>-NH(C=X)-(CH<sub>2</sub>)<sub>c</sub>-, or -(CH<sub>2</sub>)<sub>b</sub>-NH(C=O)-(CH<sub>2</sub>)<sub>c</sub>-R<sub>4</sub>; R<sub>3</sub> is hydrogen or C<sub>1</sub> to C<sub>6</sub> alkyl; R<sub>4</sub> is formula XV or formula XVII; A, B, D, E, and F are each independently C or N; R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>15</sub>, R<sub>16</sub>, R<sub>17</sub>, R<sub>18</sub>, and R<sub>19</sub> are each  
15 independently hydrogen, halogen, -CN, or -OR<sub>20</sub>; and R<sub>20</sub> is C<sub>1</sub> to C<sub>6</sub> alkyl.

5.        The compound of claim 1, wherein R<sub>1</sub> is formula II, formula III, or formula IV; R<sub>2</sub> is -R<sub>4</sub>; R<sub>3</sub> is hydrogen or C<sub>1</sub> to C<sub>6</sub> alkyl; R<sub>4</sub> is formula XVII; G, I, J, and K are each independently C, N, or O; L is C; R<sub>11</sub>, R<sub>12</sub>, R<sub>13</sub>, and R<sub>14</sub> are each independently hydrogen, C<sub>1</sub> to C<sub>6</sub> alkyl, or C<sub>1</sub> to C<sub>6</sub> alkylaryl.

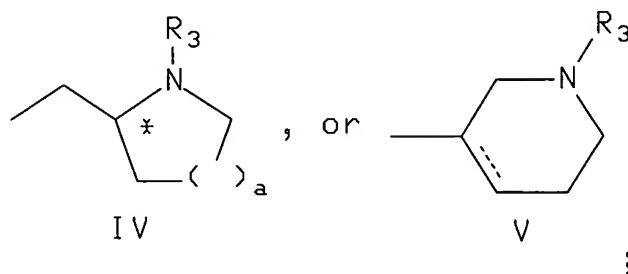
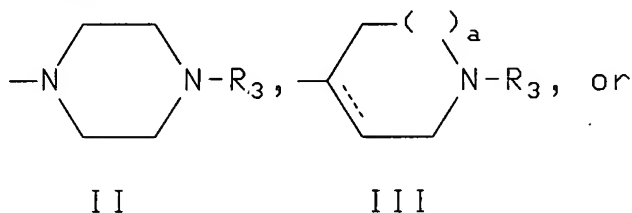
20        6.        The compound of claim 1, said compound being selected from:  
7-(Imidazolo[4,5-b]pyridin-1-yl)-1-(1-methylpyrrolidin-3-yl)naphthalene;  
7-(4-Chlorobenzamido)-1-(pyrrolidin-2-(R)-ylmethyl)naphthalene;  
2-[8-(4-Methylpiperazin-1-yl)naphthalen-2-yloxy]nicotinonitrile;  
1-(4-Methylpiperazin-1-yl)-7-pyrimidin-5-yl)naphthalene;  
25 7-(5-Cyanopyridin-3-yl)-1-(4-methylpiperazin-1-yl)naphthalene;  
1-(Piperazin-1-yl)-7-(pyrimidin-5-yl)naphthalene;  
7-(4-Chlorobenzamido-1-(4-methylpiperazin-1-yl)naphthalene;  
7-(3-Methoxyphenyl)-1-(4-methylpiperazin-1-yl)naphthalene;  
7-(Imidazolo[4,5-b]pyridin-1-yl)-1-(4-methylpiperazin-1-yl)naphthalene;  
30 8-(4-Methylpiperazin-1-yl)naphthalene-2-carboxylic acid 4-chlorobenzylamide;  
7-(4-Methoxyphenyl)-1-(4-methylpiperazin-1-yl)-naphthalene;  
7-Pyrimidin-2-yloxy-1-(4-methylpiperazin-1-yl)naphthalene;  
7-(Benzimidazol-1-yl)-1-(4-methylpiperazin-1-yl)naphthalene; and  
8-(1-Methylpiperidin-4-yl)naphthalene-2-carboxylic acid 4-chlorobenzylamide.

35        7.        A pharmaceutical composition for treating a condition selected from hypertension, depression, anxiety, eating disorders, obesity, drug abuse, cluster headache, migraine, pain, Alzheimer's disease, and chronic paroxysmal hemicrania and headache associated with vascular disorders comprising an amount of a compound according to claim 1 effective in treating such condition and a pharmaceutically  
40 acceptable carrier.

- 5            8.        A pharmaceutical composition for treating disorders arising from deficient serotonergic neurotransmission comprising an amount of a compound according to claim 1 effective in treating such condition and a pharmaceutically acceptable carrier.
9.        A method for treating a condition selected from hypertension, depression, anxiety, eating disorders, obesity, drug abuse, cluster headache, migraine, Alzheimer's
- 10           10.        A method for treating disorders arising from deficient serotonergic neurotransmission comprising administering to a mammal requiring such treatment an amount of a compound according to claim 1 effective in treating such condition.
10.        A method for treating disorders arising from deficient serotonergic neurotransmission comprising administering to a mammal requiring such treatment an
- 15           11.        A compound of the formula



where R<sub>1</sub> is of the formulae



- 5  $R_2$  is (Methyl)<sub>3</sub>Sn- or (Butyl)<sub>3</sub>Sn-;  $R_3$  is hydrogen, C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkylaryl, or  
aryl; a is 0, 1, or 2; and a broken line indicates the presence optionally of a double bond  
and the above aryl groups and the aryl moieties of the above alkylaryl groups are  
independently selected from phenyl and substituted phenyl, wherein said substituted  
phenyl may be substituted with one to three groups selected from C<sub>1</sub> to C<sub>4</sub> alkyl,  
10 halogen, hydroxy, cyano, carboxamido, nitro, and C<sub>1</sub> to C<sub>4</sub> alkoxy.